ELECTRONIC INNOVATIONS IN ACTION TUBES

—PRODUCT INFORMATION—

6LX8

Triode-Pentode

The 6LX8 is a triode-pentode intended primarily for horizontal-oscillator and AFC service in the horizontal-deflection systems of television receivers.

GENERAL

ELECTRICAL

Cathode - Coated Unipotential

Heater Characteristics and Ratings

Heater Voltage, AC or DC★	6.0	Volts
Heater Current●	0.45±0.03	Amperes
Heater Warm-up Time, average▲	11	Seconds

Direct Interelectrode Capacitances♦

Pentode Section

Grid-Number 1 to Plate: maximum (Pg1 to Pp)	0.01	pf
Input: Pg1 to (h+Pk+Pg2+Pg3+i.s.)	5.5	pf
Output: Pp to (h+Pk+Pg2+Pg3+i.s.)	3.4	pf

Triode Section

Grid to Plate: (Tg to Tp)	1.8	pf
Input: Tg to (h+Tk+Pk+Pg3+i.s.)	3.2	pf
Output: Tp to (h+Tk+Pk+Pg3+i.s.)	1.9	pf

MECHANICAL

Operating Position - Any
Envelope - T-6½, Glass
Base - E9-1, Small Button 9-Pin
Outline Drawing - EIA 6-2

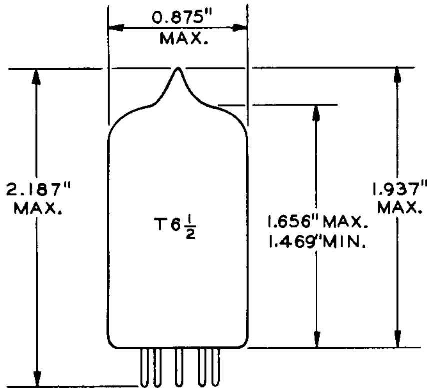
Maximum Diameter	0.875	Inches
Maximum Over-all Length	2.187	Inches
Maximum Seated Height	1.937	Inches

MAXIMUM RATINGS

DESIGN-CENTER VALUES

	Pentode Section	Triode Section	
Plate Voltage	250	250	Volts
Screen Voltage	250	---	Volts
Plate Dissipation	1.2	1.4	Watts
Screen Dissipation	0.2	---	Watts
DC Cathode Current	15	10	Milliamperes
Peak Cathode Current	50	---	Milliamperes
Heater-Cathode Voltage			
Heater Positive with Respect to Cathode			
DC Component	100	100	Volts
Total DC and Peak	200	200	Volts
Heater Negative with Respect to Cathode			
Total DC and Peak	200	200	Volts
Grid-Number 1 Circuit Resistance			
With Fixed Bias	0.56	3.0	Megohms
With Cathode Bias	1.0	---	Megohms

PHYSICAL DIMENSIONS

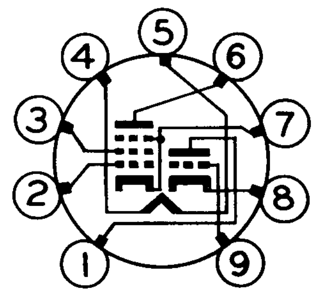


EIA 6-2

TERMINAL CONNECTIONS

Pin 1 - Triode Plate
Pin 2 - Pentode Grid-Number 1
Pin 3 - Pentode Grid-Number 2 (Screen)
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Pentode Plate
Pin 7 - Pentode Cathode, Grid-Number 3 and Internal Shield
Pin 8 - Triode Cathode
Pin 9 - Triode Grid

BASING DIAGRAM



EIA 9DC

MAXIMUM RATINGS (Cont'd)

Design-Center ratings are limiting values of operating and environmental conditions applicable to a bogey electron tube of a specified type as defined by its published data and should not be exceeded under normal conditions.

The tube manufacturer chooses these values to provide acceptable serviceability of the tube in average applications, making allowance for normal changes in operating conditions due to rated supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, environmental conditions, and variations in the characteristics of the tube under consideration and of all other electron devices in the equipment.

The equipment manufacturer should design so that initially no design-center value for the intended service is exceeded with a bogey tube under normal operating conditions at the stated normal supply voltage.

CHARACTERISTICS AND TYPICAL OPERATION

AVERAGE CHARACTERISTICS

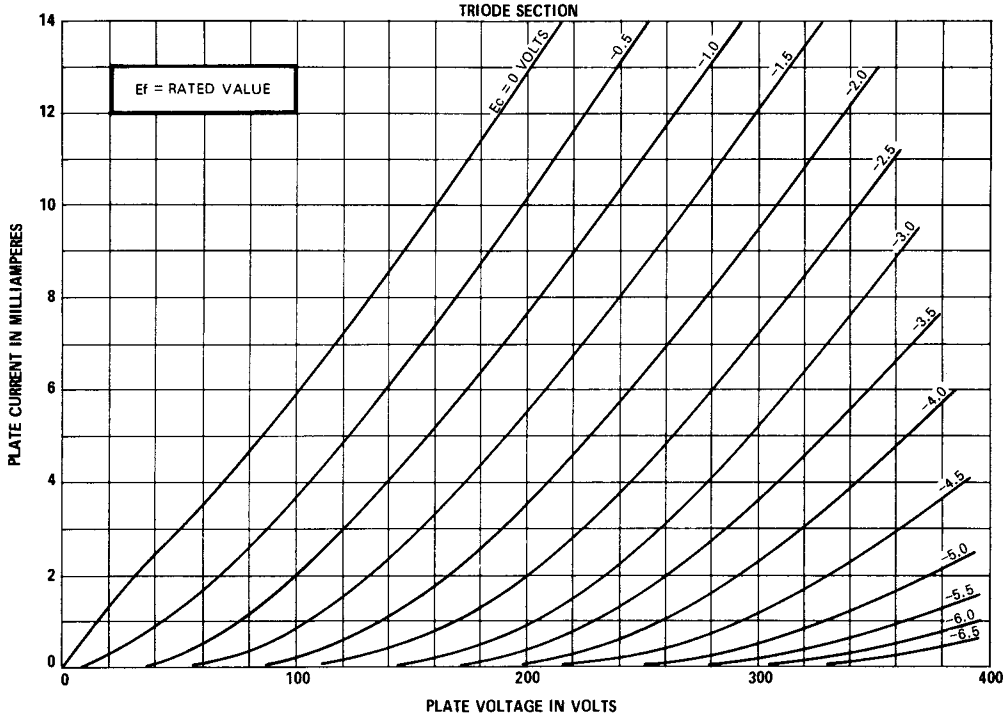
	Pentode Section		Triode Section	
Plate Voltage	200	100	200	Volts
Screen Voltage	200	100	---	Volts
Grid-Number 1 Voltage	0	−1.0	−2.0	Volts
Amplification Factor	---	---	70	
Plate Resistance, approximate	---	400000	20000	Ohms
Transconductance	---	5500	3500	Micromhos
Plate Current	12.5	6.0	3.5	Milliamperes
Screen Current	3.5	1.7	---	Milliamperes
Grid Voltage, approximate Ic = +0.3 Microamperes	---	---	−1.3	Volts
Grid-Number 1 Voltage, approximate Ic1 = +0.3 Microamperes	---	−1.3	---	Volts
Grid-Number 1 Voltage, approximate Ib = 10 Microamperes	−16	---	---	Volts

NOTES

- ★ Heater voltage for a bogey tube at If = 0.45 amperes.
- ● The equipment designer should design the equipment so that heater current is centered at the specified bogey value, with heater supply variations restricted to maintain heater current within the specified tolerance.
- ▲ The time required for the voltage across the heater to reach 80 percent of the bogey value after applying 4 times the bogey heater voltage to a circuit consisting of the tube heater in series with a resistance equal to 3 times the bogey heater voltage divided by the bogey heater current.
- ♦ Without external shield.

AVERAGE PLATE CHARACTERISTICS

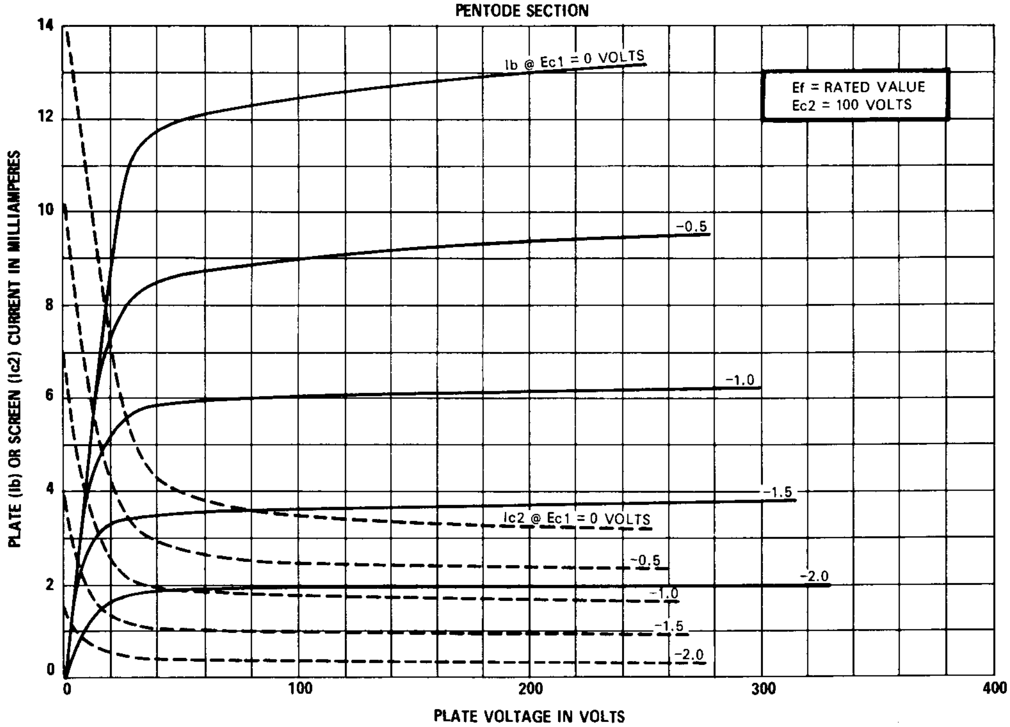
TRIODE SECTION



K-55611-TD375-1

AVERAGE PLATE CHARACTERISTICS

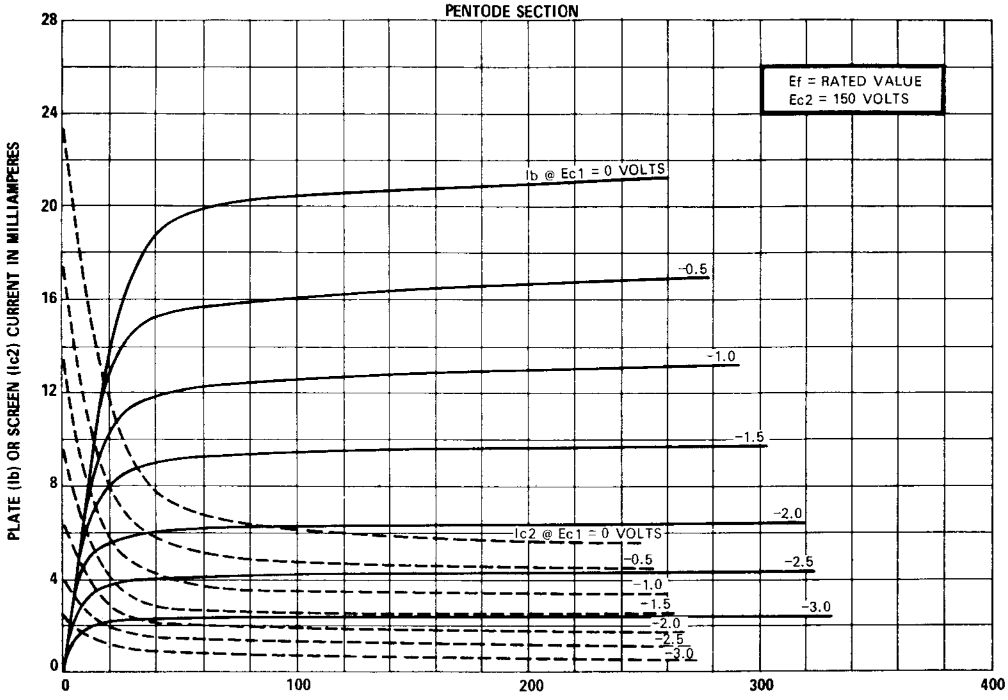
PENTODE SECTION



K-55611-TD375-2

AVERAGE PLATE CHARACTERISTICS

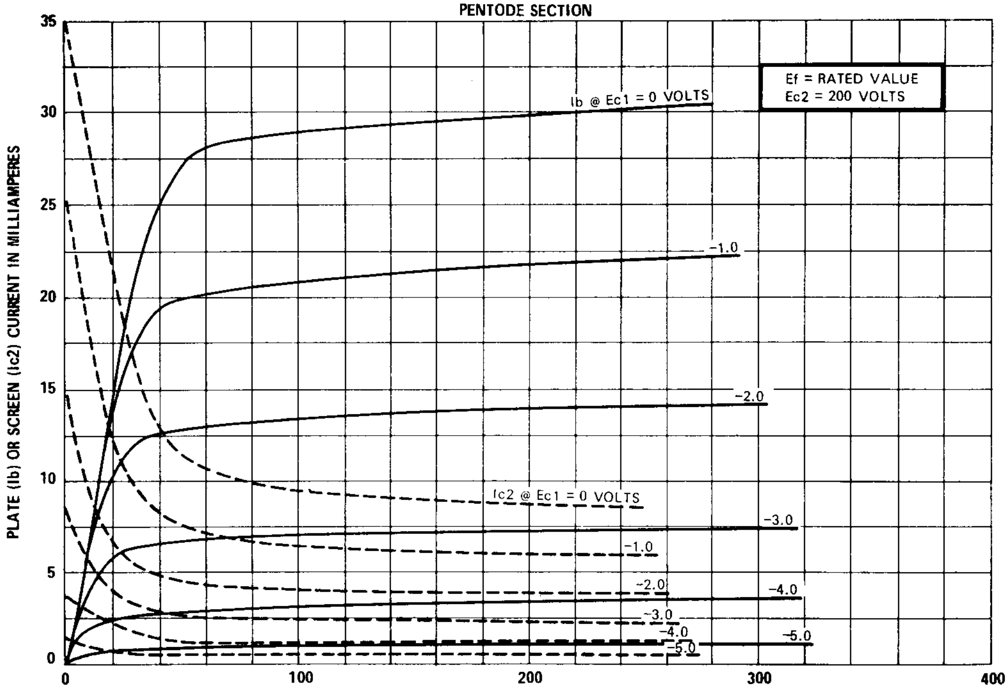
PENTODE SECTION



K-55611-TD375-3

AVERAGE PLATE CHARACTERISTICS

PENTODE SECTION



K-55611-TD375-4

TUBE PRODUCTS DEPARTMENT

Owensboro, Kentucky 42301

GENERAL ELECTRIC